

ABSTRACT OF THE DISCLOSURE

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In a plasma film-forming apparatus which includes a film-forming chamber in which a substrate is arranged, a film-forming gas introducing pipe connected to a supply source of a film-forming gas at its first end, a shower plate through numerous holes of which a second end of said film-forming gas introducing pipe communicate with said film-forming chamber, film-gas exciting means for exciting film-forming gas introduced through said shower plate into said film-forming chamber, to form a film on the surface of said substrate with the chemical reaction, radicals-producing means which excites said cleaning gas and produces radicals, and cleaning-gas introducing means which introduces said cleaning gas containing said radicals into said film-forming chamber, the improvement in which said cleaning-gas introducing means communicate directly with said film-forming chamber.

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